



TRB FREEWAY OPERATIONS COMMITTEE Texas Report

January, 1995

EL PASO DISTRICT

The El Paso District has completed installation of conduit, junction boxes, loops, and surveillance cabinets along a 27 mile section of Interstate 10 and a seven mile section of US 54. The supporting structures for seven fiber optic changeable message signs have been completed and the erection of signs should begin in February, 1995. Three consultant firms are competing for a project to develop the plans for surveillance on these highways and a control center. The Courtesy Patrol has increased from two vehicles to four. Coverage along IH-10 and US 54 is from 7:00 a.m. to 10:00 p.m., Monday through Friday. A Traffic Management Team was created in May of 1994 and meets at the District Headquarters on the first Wednesday of every month.

CORPUS CHRISTI DISTRICT

The Corpus Christi District has completed the change out of signal controllers at all freeway/cross street locations. All intersections are now actuated. Two intersections have closed-loop monitoring capabilities. A recent incident detoured traffic from the freeway and through one of these intersections. The District was able to adjust the timing of the intersection and monitor activities remotely. The District is investigating additional monitoring capabilities on the freeways.

FORT WORTH DISTRICT

Five miles along I-35W through the center of Fort Worth, and 3 miles along I-20, contain: Fiber Optic trunk system, Changeable Message Signs, Closed Circuit Television Cameras, Loop Detector system and Lane Control Signals. At this time, the District is operating 10 CMS signs, 8 CCTV cameras, 73 LCS signals and 150 loop detectors. The entire system is being operated from a satellite control center. Two systems are under contract: A fiber optic trunk system, 6 CMS signs, 35 LCS signals, 100 loop detectors and 8 CCTV cameras are being installed along eight miles of I-20 in the Southwest corner of Fort Worth. Completion is estimated for December '95. Another fiber optic trunk system, 2 CMS signs and 24 LCS signals are being installed on three miles of I-20 in the southeast corner of Fort Worth. Completion is estimated for June '95.

Several systems are being designed: Three miles along SH-121 and Loop 820 in Northeast Tarrant County with a Fiber Optic trunk system, 8 CCTV cameras, 6 CMS signs, 80 loop detectors and 1 satellite control center - letting March 1995; Ten miles along SH-183 in Northeast Tarrant County with 7 CMS signs, 4 compressed video CCTV Cameras and 4 autoscope video detection systems - letting August '95; 15 miles along SH-360 on the East side of Arlington with a Fiber Optic trunk system, 7 CMS signs, 6 CCTV cameras, 2 compressed video CCTV cameras, 29 LCS signals, 150 loop detectors and 1 satellite control center - letting September '95; Eight Miles along I-30 in West Fort Worth to integrate 30 existing LCS signals and 130 loop detectors into the existing satellite control center - letting August '95; One Mile of the I-35W and I-30 interchange (Mixmaster) in Downtown Fort Worth with a Fiber Optic trunk line, 4 CMS signs, 30 LCS signals, 75 loop detectors and 4 CCTV cameras - letting January '96; Development of a Traffic Control Center, located at the District Headquarters in Fort Worth, to integrate all the satellite control centers - letting June '97.

HOUSTON District

In the past three years, the Houston District has let \$23.7 million worth of contracts to install Computerized Traffic Management Systems on over 86 miles of freeways. The systems consist of surveillance cameras, volume and speed detectors, changeable message signs, lane control signals, ramp metering signals and a fiber optic cable communication system. The District has also installed changeable message signs on several other roads for use in diverting traffic during incidents, and ten closed circuit television cameras around the Astrodome to help monitor and control traffic during events at that location. The District has installed an Automated Vehicle Identification system on several freeways that reads the same ID cards as those used by the Harris County Toll Road Authority on its toll roads. The information collected from the AVI system is being studied for its application to traffic volume and speed analysis. The District's most noteworthy achievement has been the completion this year of an "Interlocal Agreement for a Regional Transportation Management Program", between the Texas Department of Transportation (TxDOT), the Metropolitan Transit Authority of Harris County (METRO), the City of Houston and Harris County. The cooperation has resulted in the letting of a contract to build a Traffic Management Center which will be shared by the four agencies plus the Emergency Management officers of the City of Houston and Harris County.

SAN ANTONIO DISTRICT

The San Antonio District's Traffic Management Center is currently undergoing complete system testing, with start-up scheduled by mid-1995. The initial phase of operation includes 26 miles of freeway, mainly in the downtown San Antonio area. The system will ultimately cover 191 miles of freeway. Components of the system which continue to be tested at this time include the loop detectors, CMS, Lane Control Signals (LCS) and cameras. Software tests also continue. Currently, 95 percent of the placement of LCS is complete. Placement of CMS is 96 percent complete and placement of the video cameras is 29 percent complete. Recently, two of the CMS were utilized to help City of San Antonio Police and Fire Departments during an incident. After a fire broke out at a pesticide plant, emergency workers were able to warn motorists of a street closure in the vicinity of the fire. Control center employees will include TxDOT operators, San Antonio transit (VIA) dispatch operators, and a City of San Antonio Police dispatcher. Those agencies which will house offices and laboratories on the third floor of the building include Texas Transportation Institute, Southwest Research Institute, VIAtrans and the City of San Antonio. The Bexar County backup emergency response system will be located on third floor. This system involves emergency coordination efforts between police, fire and EMS. The San Antonio TxDOT Courtesy Patrol will also be relocating to the Center. A technical video detailing the Center's operation has been produced and a shorter, consumer video is near completion. These videos will be accompanied by a technical brochure and a consumer brochure.

DALLAS DISTRICT

The Dallas District is in the process of installing or designing applications of CMS on four projects at 16 locations in the Dallas area, with estimated completion dates between March and July, 1995. The District is also designing surveillance loop detectors spaced at one-half mile intervals on 11 miles of major Dallas freeways, with estimated project letting dates from March to May, 1995. Video surveillance cameras are currently being installed or designed, using compressed video and real-time closed circuit television. Compressed video is being used at four locations on the North Central Expressway project that is due to be complete in mid 1995. Compressed video is also planned for use on two portable trailers during the actual reconstruction of other portions of North Central Expressway that are scheduled for letting in May, 1995. Twelve real-time closed circuit television cameras, using spread spectrum and fiber optic communication, are planned for permanent installation on the North Central project. A satellite control center project is scheduled for a May, 1995 letting.